

2. H. W. Gould, "A New Greatest Common Divisor Property of the Binomial Coefficients," Fibonacci Quarterly, Vol. 10, No. 6 (1972), pp. 579-584.
3. V. E. Hoggatt, Jr., "Fibonacci Numbers and Generalized Binomial Coefficients," Fibonacci Quarterly, Vol. 5, No. 4 (1967), pp. 383-400.



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for $1 \leq N < a_{n+1}$, $1 \leq d(N) \leq n$, and since the sets $\{d(N) = d\}$ are disjoint, we have that

$$(7) \quad a_{n+1} - 1 = \sum_{d=1}^n f(n, d, C) \quad ,$$

where $f(n, d, C)$ denotes the number of integers N , such that $1 \leq N < a_{n+1}$ and for which the representation (3) and (4) contains exactly d non-zero terms. By the relation between the n -vectors of $C(e)$ and the interval $1 \leq N < a_{n+1}$, proved in the first paragraph of the proof, $f(n, d, C)$ reduces to the combinatorial function $k(n, d, C)$, hence the formula (5) is proved. Since the property C is, by assumption, independent of the a 's, the formula (5), whenever it is defined, determines a single sequence. Note that the whole argument assumed (4), hence that $n \geq 1$. The fact that $a_1 = 1$ follows from applying (3) with $N = 1$, and thus the proof is completed.

To conclude, I wish to remark that if C depends on the a 's to be determined, the equation (5) still applies as it can be seen from the argument above; in this case, however, (5) may have more than one solution.

REFERENCES

1. D. E. Daykin, "Representation of Natural Numbers as Sums of Generalized Fibonacci Numbers," J. London Math. Soc., 35 (1960), pp. 143-160.
2. J. Galambos, "On a Model for a Fair Distribution of Gifts," J. Appl. Prob., 8 (1971), pp. 681-690.
3. W. Parry, "On the β -Expansions of Real Numbers," Acta. Math. Acad. Sci. Hung., II (1960), pp. 401-416.



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